

$$y = 2x$$

$$\frac{dy}{dx} = \frac{d(2x)}{dx} = 2 \frac{d(x)}{dx} = 2 \frac{dx}{dx} = 2$$

$$\frac{dy}{dx} = 2$$

converse

$$\therefore \frac{dy}{dx} = 2$$

$$\Rightarrow dy = 2dx$$

on integrating both side

$$\underline{y = 2x}$$